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NEW METER RATES IN THE SAN FRANCISCO DISTRICT

BY ALLEN HAZEN

New meter rates have been put in effect by two large water companies in the San Francisco district during the past year. These companies are the Spring Valley Water Company, supplying San Francisco, and the East Bay Water Company, supplying Oakland, Alameda, Berkeley, Richmond and other municipalities. Each system has approximately 65,000 services. The rates were asked for by the companies and the rates and the form of rate schedule were authorized by the California State Railroad Commission after hearings in each case.

Each system is completely metered, the East Bay system for some years. Large takers and commercial takers of the Spring Valley system have been metered for some years, but residences have been metered only recently. The last residences were metered about September 1, 1918, and the new meter rates went into effect at that time. In each case the new schedule supersedes old schedules that were complicated and did not fairly distribute the burden among the different takers.

In the Spring Valley system there were over 50,000 takers at flat rates. In the East Bay system each municipality had its own schedule of rates and the schedules varied among themselves. The new schedule is uniform for the entire system. The Spring Valley rates are arranged to produce the same revenue as the old rates in the aggregate, and it is provided that in the event that through inadvertence or as a result of conditions impossible to estimate accurately, a greater revenue shall be produced, all over-plus over present revenue shall be held at the disposition of the Commission for the benefit of consumers. If there is deficiency the Company loses it.

In the East Bay system, on the other hand, the new rates provide a substantial increase, which was urgently needed to meet the increased cost of service. The new rates are in the general form adopted by the New England Water Works Association; that is to

say, there is a service charge for each meter, graded according to the size of the meter, which is collected whether water is used or not. In addition there is a charge for all water used. In the Spring Valley system the schedule is in the exact form adopted by the New England Water Works Association. For the East Bay system, on the other hand, only two classes are provided, and the point of change from one to the other is not that provided in the New England Water Works Association schedule.

The service charges in the two systems are as follows:

SIZE OF METER	MONTHLY CHARGE	
	East Bay	Spring Valley
<i>inches</i>		
$\frac{5}{8}$	\$0.65	\$0.50
$\frac{3}{4}$	1.00	1.00
1	1.50	1.50
$1\frac{1}{2}$	2.50	2.50
2	4.50	4.50
3	8.00	8.00
4	12.50	12.50
6	25.00	25.00

The charges for water delivered in the Spring Valley system are:

Between 0 and 3,300 cu. ft. per month..24 cents per 100 cu. ft.

Between 3,300 and 33,300 cu. ft. per month..21 cents per 100 cu. ft.

Above 33,300 cu. ft. per month.....18 cents per 100 cu. ft.

For the East Bay system, the charges for water delivered are:

Between 0 and 5,000 cu. ft. per month....23 cents per 100 cu. ft.

Above 5,000 cu. ft. per month.....19 cents per 100 cu. ft.

The bill is rendered on a form about $12\frac{3}{4}$ inches long and $3\frac{1}{2}$ inches wide. This is in three sections with roulettes lines between them so they can be readily separated. This form is reproduced in figures 1a, 1b and 1c. The schedule of charges is printed on the back of the bill.

Before adopting these rates, there was considerable discussion of the relative advantages of the minimum rate and of the service charge as a means of securing a certain contribution from those takers that draw but little water. Regarding this the Railroad Commission states (Spring Valley opinion):

The minimum charge is invariably higher than the service charge, and it involves the payment by each consumer for a fixed amount of water regardless of whether or not he uses it. There is no answer known to us which can be made to the man who complains that under a minimum rate he is compelled to pay the same amount for 100 cubic feet of water as his neighbor pays for 300 or 400 cubic feet of water, depending on the amount fixed for minimum use.

We believe that under the conditions of service we are dealing with herein, the service charge once established and thoroughly understood will be agreed to as the fairest and most equitable method of fixing rates.

The winter of 1917-1918 was the driest in the San Francisco district for at least sixty years. The reservoirs of the water companies were not replenished, and the past season has made very severe demands upon their capacities. The East Bay Water Company has maintained its service by developing temporary ground water supplies wherever there was pervious ground within its range that could be tapped. The supplies so reached may not be permanent, but they have served to carry the company by an emergency.

The Spring Valley Water Company fortunately had considerable amounts of water in storage which have served to maintain the supply during this year, but the gradual depletion of the stock of water on hand could only mean disaster if the consumption kept on increasing. Metering the residences and charging by meter rates has had the effect of reducing the output by a substantial amount. The output is now at the rate of about 37,000,000 gallons per day for the city, which is approximately the rate of 1911, or seven years earlier. In other words, the effect of metering has been to reduce the consumption as much as the natural increase in about seven years, and the increase in consumption during the last two years has been rapid, with numerous war industries that have taken large quantities of water where none was used before. The present per capita consumption of water of the Spring Valley Water Company is about 67 gallons. For the East Bay system it is a little lower, probably between 60 and 65 gallons.

One of the interesting developments of the new meter rates in San Francisco is the gradual substitution of smaller meters wherever the old meter was larger than really necessary for the service. With each bill, where the amount of water is unduly small for the size of meter, goes a polite note from the sales manager of the company, calling the taker's attention to the conditions and suggesting

FOR WATER SERVICE		METER READING	
TO	FROM	CUBIC FEET	AT RATES SHOWN ON REVERSE
SERVICE CHARGE	-	-	\$ - - - -
FOR WATER DELIVERED	-	-	\$ - - - -
BALANCE FORWARD	-	-	\$ - - - -
TOTAL AMOUNT DUE	-	-	\$ - - - -
FOR PREMISES:			
<p align="center">THIS BILL IS DUE AND PAYABLE ON PRESENTATION AND IF NOT PAID WITHIN FIFTEEN DAYS THEREAFTER SERVICE IS SUBJECT TO DISCONTINUANCE WITHOUT FURTHER NOTICE.</p> <p align="center">BILL LEFT.....</p>			
<p align="right">CONSUMER'S RECORD</p> <p align="right">DATE PAID.....</p> <p align="right">By Check No......</p> <p align="right">YOUR CANCELLED CHECK IS A RECEIPT. NO ACKNOWLEDGMENT SENT UNLESS REQUESTED.</p>			
<p align="center">375 SUTTER STREET, SAN FRANCISCO</p> <p align="center">TO SPRING VALLEY WATER COMPANY, D.R.</p>			

FIG. 1A. LEFT-HAND SECTION OF FORM USED IN COLLECTING METER ACCOUNTS

METER BILL

TO
FROM

**SPRING
VALLEY
WATER
COMPANY**
375 Sutter St.,
San Francisco

SERVICE

BAL. FWD.

TOTAL

CONSUMERS DESIRING RECEIPT PLEASE SEND BOTH BILL AND STUB
WITH REMITTANCE OTHERWISE PLEASE SEND STUB ONLY.

Form 12-84M-Oct. 1918

METER BILL

1st. Meters Left.....	TO
Where ...	FROM
With Whom	SPRING VALLEY WATER COMPANY
By	SERVICE
Fir. Mtr. Left	375 Sutter St.
Where	San Francisco
With Whom	BAL. FWD.
By..	TOTAL

METER NO. DEPOSIT
COMPARED AT READS
S/O BY

FIG. 1B. MIDDLE SECTION OF FORM USED IN COLLECTING METER
ACCOUNTS

FIG. 1C. RIGHT-HAND SECTION OF FORM USED IN COLLECTING METER
ACCOUNTS

that apparently a smaller meter of a size that is suggested would be sufficient, and stating that with the smaller size the saving in the monthly bill would be so much, and stating further that the company is prepared to make the change without cost, if the taker desires it made.

Sending this letter is bringing about a better adjustment in the sizes of meters to the service, which is advantageous to both company and takers, and the takers have appreciated the suggestion. The sales manager states that there have been surprisingly few complaints growing out of the new schedule of rates. A few people have sent checks for the water without the service charge, but these checks have been returned and in practically all cases the situation has been accepted by the takers.

The interesting comment is made that most of the "kickers" are among those who have reduced water bills by the new rates. With very few exceptions those whose bills have been increased have accepted the increase philosophically. They perhaps realized that they have been getting more water than they were paying for and accepted the condition, but the man who has been paying \$5 and gets a bill of only \$4 under the new rate, considers that he has a confession from the company that he has been overcharged in the past, and he loudly demands to have his bill put down to the point where it really ought to be.

The introduction of the new system of charges by the Spring Valley Water Company was made easier by the distribution to each taker of a pamphlet on the subject of waste prevention and the best methods of paying for water, from which the following extracts are reproduced here:

The necessity for the prevention of waste. To meet the present urgent needs of the city and to prevent a possible future shortage, San Francisco's supply of water must be carefully guarded. The present sources of supply are now drawn to their full capacity, and, unless some of this supply can be saved, additional water must be secured. An additional supply can only be secured by building an additional pipe line to the city and after the pipe line is commenced, it will take three years to complete it. It is impossible to build this pipe line now, because necessary labor cannot be secured, and steel plate and other materials absolutely essential in this construction are required by the United States Government. This means that for the next few years San Francisco must depend upon its present developed supply, and every effort must be made to make that supply sufficient to meet the city's needs. If this is not done, San Francisco will be short of water.

There is one way in which such a disaster can be prevented and there is only one way. It involves the elimination and prevention of waste. Waste of water can be dealt with effectively only by installing water meters. The California Railroad Commission has recognized these facts and has directed this company to install meters. The necessity for installing meters is recognized by every public authority conversant with the situation. This includes the city engineer, the engineers for the Railroad Commission, and the Railroad Commission itself.

Reasons for meters. There are two reasons for installing water meters. First: Their use directly reduces waste. When there is a meter on each service pipe, the party carelessly or wilfully wasting water is made to pay for it. Second: Meters prevent discrimination. When they are used the consumer pays only for what he gets and the company is paid duly for what it supplies.

The old rates commonly called flat rates were unfair. Under them you did not pay for water actually used, but bills were necessarily based on the water which you were supposed to use. This resulted in some consumers paying much more than they should have paid, and in others paying much less. There was no incentive to save and waste necessarily followed.

Most people are careful in the use of water. There are, however, a few whose carelessness or deliberate waste increases enormously the amount of water that must be provided. A leaking toilet may easily waste as much water as would serve twenty families. This water costs money to produce. If those who waste it do not pay for it the burden must be borne by all. This results in the public having a heavier burden to bear and each consumer paying a greater charge. This is particularly true in this city because every gallon of water in the street mains has been pumped from one to four times before it reaches its destination. Pumping requires the use of oil. The company used this year over 100,000 barrels of oil, and the cost of oil has now increased more than 100 per cent.

What the consumer pays for. In supplying water there are three operations:

First: Developing and protecting the water at its source, collecting it in the large storage reservoirs, and pumping and conveying it to the city distributing reservoirs.

Second: Distributing water throughout the city through the main supply lines to the smaller regulating reservoirs, and finally through the distribution lines in each street.

Third: Maintenance and repairs to meters and services, inspection of plumbing and fixtures for the consumers, reading meters, bookkeeping, billing and collecting.

The charge to be made by this company on account of the first two items the Railroad Commission by its ad interim order established. It ranges from 24 cents for each 100 cubic feet for domestic and small commercial consumers to 18 cents for each 100 cubic feet for large industrial consumers. The reason for this distinction is that it costs relatively less to distribute water in large quantities than in small quantities. At the highest rate a barrel of water costs about one cent.

The third item forms the basis for what is known as the "service charge." This has been fixed by the Railroad Commission at 65 cents per month for

ordinary household meters, and increases through intermediate charges to \$40 per month for the large 8-inch connections.

The service charge. Each individual consumer pays a specific amount for service rendered to him individually, and the amount which he pays is determined by the size of his service. Unless this is done all these expenses go into the general operating expense account and must be distributed among the consumers without regard to the service to the individual. The service charge is the most equitable arrangement. It is fairer than the "minimum bill" method.

The service charge is not an additional charge and does not mean higher rates. It is simply a different and more equitable way of distributing the cost of service among consumers.

Note that if there is a discontinuance of service, the service charge likewise stops.

No increased revenue to company. The meter rates are ad interim rates. They were put in to prevent waste and to distribute fairly between the consumers the cost of supplying water. They were not put in to increase the company's revenue, and the order of the Commission specifically provides that they shall not do so. The Commission's order says:

"The proposal of the company is fair, to-wit: That the rates now established shall not result in any increased revenue or profit and in the event that through inadvertence or as a result of conditions impossible to estimate accurately, a greater revenue should be produced, all over-plus over present revenue shall be held at the disposition of the Commission for the benefit of consumers."

Effect of meter rates. At least 50 per cent of the company's consumers will pay less than they paid under flat rates. Many consumers will notice no appreciable change in the monthly charges. Others, particularly those whose water is wasted, will pay more than they have paid in the past.

Those who take large quantities of water and who get the wholesale rate will pay more. The old wholesale rate was too low and the Railroad Commission has decided that this class of consumers should bear a larger proportion of the whole cost.

Builders and contractors will pay materially less than under the old schedule. Bills for water service to vessels supplied at open docks will be much less. They were charged too much proportionately under the old rate. Several thousand small stores and shops previously paying the minimum of \$1.80 per month will average a saving of between 25 and 50 per cent. By guarding against waste through faulty plumbing and exercising proper supervision of irrigation at least one-half of the residential consumers should reduce their bills.

If your bill is higher than you think it should be look first for waste. If you do not find it see if you are not really using as much water as the bill calls for.

The company maintains a force of experienced plumbing inspectors. This force is at your service and will advise you upon request, free of charge. It is to our advantage, as well as yours, to eliminate waste, and to this end we seek your co-operation.

The rates of both companies are much higher than the average for Eastern cities. This is primarily due to the climatic conditions in California and to the location of the communities upon a wonderful natural harbor but where available sources of water supply are scarce. In a general way, it is estimated that the actual cost of the service is about double what it is on an average for cities on the Atlantic Coast.

The largest company to adopt the New England Water Works Association form of water rates, as far as known, prior to the present instances, was the Hackensack Water Company, supplying Hoboken and other cities just outside of New York.